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CLAIMS

- Sub A2
1. A gene delivery vehicle having been provided with at least a tissue tropism for smooth muscle cells and/or endothelial cells.
 2. A gene delivery vehicle having been deprived of at least a tissue tropism for liver cells.
 3. A vehicle according to claim 1 wherein said vehicle has been deprived of at least a tissue tropism for liver cells.
 4. A vehicle according to anyone of the claims 1-3, wherein said tissue tropism is being provided by a virus capsid.
 5. A vehicle according to claim 4, wherein said capsid comprises protein fragments from at least two different viruses.
 6. A vehicle according to claim 5, wherein at least one of said viruses is an adenovirus.
 7. A vehicle according to claim 5, or claim 6, wherein at least one of said viruses is an adenovirus of subgroup B.
 8. A vehicle according to anyone of the claims 5-7, wherein at least one of said protein fragments comprises a tissue tropism determining fragment of a fiber protein derived from a subgroup B adenovirus.
 9. A vehicle according to anyone of the claim 7 or claim 8, wherein said subgroup B adenovirus is adenovirus 16.
 10. A vehicle according to claim 7-9, wherein protein fragments not derived from an adenovirus of subgroup B are derived from an adenovirus of subgroup C, preferably of adenovirus 5.
 11. A vehicle according to anyone of the claims 1-10 comprising a nucleic acid derived from an adenovirus.
 12. A vehicle according to anyone of the claims 1-11, comprising a nucleic acid derived from at least two different adenoviruses.
- Sub A3

13. A vehicle according to claim 11 or claim 12, wherein said nucleic acid comprises at least one sequence encoding a fiber protein comprising at least a tissue tropism determining fragment of a subgroup B adenovirus fiber protein, preferably of adenovirus 16.
14. A vehicle according to anyone of the claims 10-13, wherein said adenovirus nucleic acid is modified such that the capacity of said adenovirus nucleic acid to replicate in a target cell has been reduced or disabled.
15. A vehicle according to anyone of the claims 11-14, wherein said adenovirus nucleic acid is modified such that the capacity of a host immune system to mount an immune response against adenovirus proteins encoded by said adenovirus nucleic acid has been reduced or disabled.
16. A vehicle according to anyone of the claims 1-15, comprising a minimal adenovirus vector or an Ad/AAV chimaeric vector.
17. A vehicle according to anyone of the claims 1-16, further comprising at least one non-adenovirus nucleic acid.
18. A vehicle according to claim 17 wherein at least one of said non-adenovirus nucleic acids is a gene selected from the group of genes encoding: an apolipoprotein, a nitric oxide synthase, a herpes simplex virus thymidine kinase, an interleukin-3, an interleukin-1 α , an (anti)angiogenesis protein such as angiostatin, an anti-proliferation protein, a smooth muscle cell anti-migration protein, a vascular endothelial growth factor (VEGF), a basic fibroblast growth factor, a hypoxia inducible factor 1 α (HIF-1 α) or a PAI-1.
19. A cell for the production of a vector according to anyone of the claims 1-18, comprising means for the assembly of said vectors wherein said means includes a means for the production of an adenovirus fiber protein, wherein said fiber protein comprises at least a tissue tropism determining fragment of a subgroup B adenovirus fiber protein.
20. A cell according to claim 19, wherein said cell is or is derived from a PER.C6 cell (ECACC deposit number 96022940).

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or the treatment of a disease
therapeutic nucleic acid to sm
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with or provided with a tissue
cells and/or endothelial cells
ly comprises proteins from at
uses and wherein at least a
fragment of a fiber protein is

adenovirus, preferably of
having been derived of a tissue
culture source, preferably
from a different adenovirus

trovirus determining fragment
from a subgroup B adenovirus,
for the treatment of a disease
as caused according to claim
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cells provided with a tissue culture medium containing a virus capsid according to claim 1, the medium comprising adenovirus 5

comprising adenovirus 5
94-35938, further comprising
fiber protein, derived of
adenovirus 5, comprising adenovir
94-35938, further compris
fiber protein, and further

in the proximity of the
pept, in the non-adenovirus
struct.

31. Construct pWE/Ad.AflIIrITRfib16, comprising adenovirus 5 sequences 3534-31094 and 32794-35938, further comprising an adenovirus 16 gene encoding fiber protein.
32. Construct pWE/Ad.AflIIrITRDE2Afib16, comprising
- 5 adenovirus 5 sequences 3534-22443, 24033-31094 and 32794-35938, further comprising an adenovirus 16 gene encoding fiber protein.
33. The use of a construct according to anyone of the
- 10 ~~claims 28-32~~ for the generation of a vehicle according to anyone of the ~~claims 1-18~~ or an adenovirus capsid according to claim 24 or claim 25.
34. The production of a vehicle according to anyone of the ~~claims 1-18~~ or a adenovirus capsid according to ~~claim 24~~ or ~~claim 25~~.
- 15 35. The use of a vehicle according to anyone of the ~~claims 1-18~~ for the generation a ~~gene library~~.
36. The use of a fiber protein of adenovirus 16 for the delivery of nucleic acid to smooth muscle cells and/or endothelial cells.
- 20 37. . The use of a fiber protein of adenovirus 16 in an adenovirus capsid for depriving said capsid of a tissue tropism for liver cells.

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